

# Work Order ID 57332 - 1

April 5, 2010 2:40:12 PM



Accept



Setup Start



Stop



Item ID: D2646

Revision ID:

Item Name: Aft Cap

Start Date: 05/04/2010 Start Qty: 50.00

Required Date: 09/04/2010 Req'd Qty: 50.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D2646

Rev C

100

0.00



Purchasing

PURCHASING

Memo

0.00

Purchasing

Issue P/O: 11589 ☐ 1-Spin as per Dwg D2646 ☐ 2-Material release note required

110

0.00



Packaging

Receive & Inspect for Damage & Mat'l Certs

Memo

0.00

Packaging

Ensure Material Release Note is attached

120

0.00



QC

QC6- Inspect dimensions to drawing

Memo

0.00

Quality Control

S1010463

counts

7100

QSP019

SIEG

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 57332

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Page 2

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Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130



Small Fab

Small Fab

Memo

0.00

0.00

1-Drill using DT8026 as per Dwg D2646. 2-Open holes to .297 as per Dwg D2646. 3-Deburr

*EP 10/05/03 100*

140



QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

0.00

*Subst 103*

*count  
x100  
asp 103*

150



HandFinish

Hand Finishing

Chemical Conversion Coat per QSI005 4.1

Memo

0.00

0.00

*100 10-5-4*



W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

# Work Order ID 57332

April 5, 2010 2:40:12 PM



Page 3

Item ID: D2646

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Item Name: Aft Cap

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Start Date: 05/04/2010 Start Qty: 50.00



Cust Item ID:

Required Date: 09/04/2010 Req'd Qty: 50.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

160

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

=> ML 10/05/13

100

9

Powder Coating

START TIME:

10:30 AM

OVEN TEMPERATURE:

11:00 AM FINISH TIME:

320°F

170

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

100 BR 10-5-31

Quality Control

180

Small Fab

0.00



Small Fab

Memo

0.00

ml 10 05 31 100

Small Fab

Install inserts as per Dwg D2646

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Work Order ID 57332

April 5, 2010 2:40:12 PM



Page 4

Item ID: D2646

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Setup Start



Revision ID:

Item Name: Aft Cap

Stop



Start Date: 05/04/2010 Start Qty: 50.00



Cust Item ID:

Required Date: 09/04/2010 Req'd Qty: 50.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

190

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

200

Identify as per dwg & Stock Location: FP-4 0.00



Packaging

Memo

0.00

Packaging

210

QC21- Final Inspection - Work Order Release 0.00



QC

Memo

0.00

Quality Control

center  
(99)  
QSPOLG

99 BL 10-6-1

10/06/01

10-6-01  
(99)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

April 5, 2010 2:40:17 PM

Page 1

Work Order ID: 57332



Parent Item: D2646



Parent Item Name: Aft Cap

Start Date: 05/04/2010

Required Date: 09/04/2010

Comments: IPP: G05.08.22 Hole size revised in Step 5 KJ/JLM  
 IPP Rev:H Changed Inserts 07-02-19 JLM  
 IPP rev I changed inserts 07.06.11 EC

Start Qty: 50.00

Required Qty: 50.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Remaining	Qty	Date	Status
ALS7-1032-130		Purchased	No			110	Each	645.0000	100.0000			



Insert



Warehouse  
Location

Loc Qty

Loc Code

Main Warehouse

ST282 114654  
 113238

645  
 645

D2646P

Purchased

No

180

Each

0.0000

50.0000



Aft Cap



ml 10-05-37

200

pl 10-6-01

(signature)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

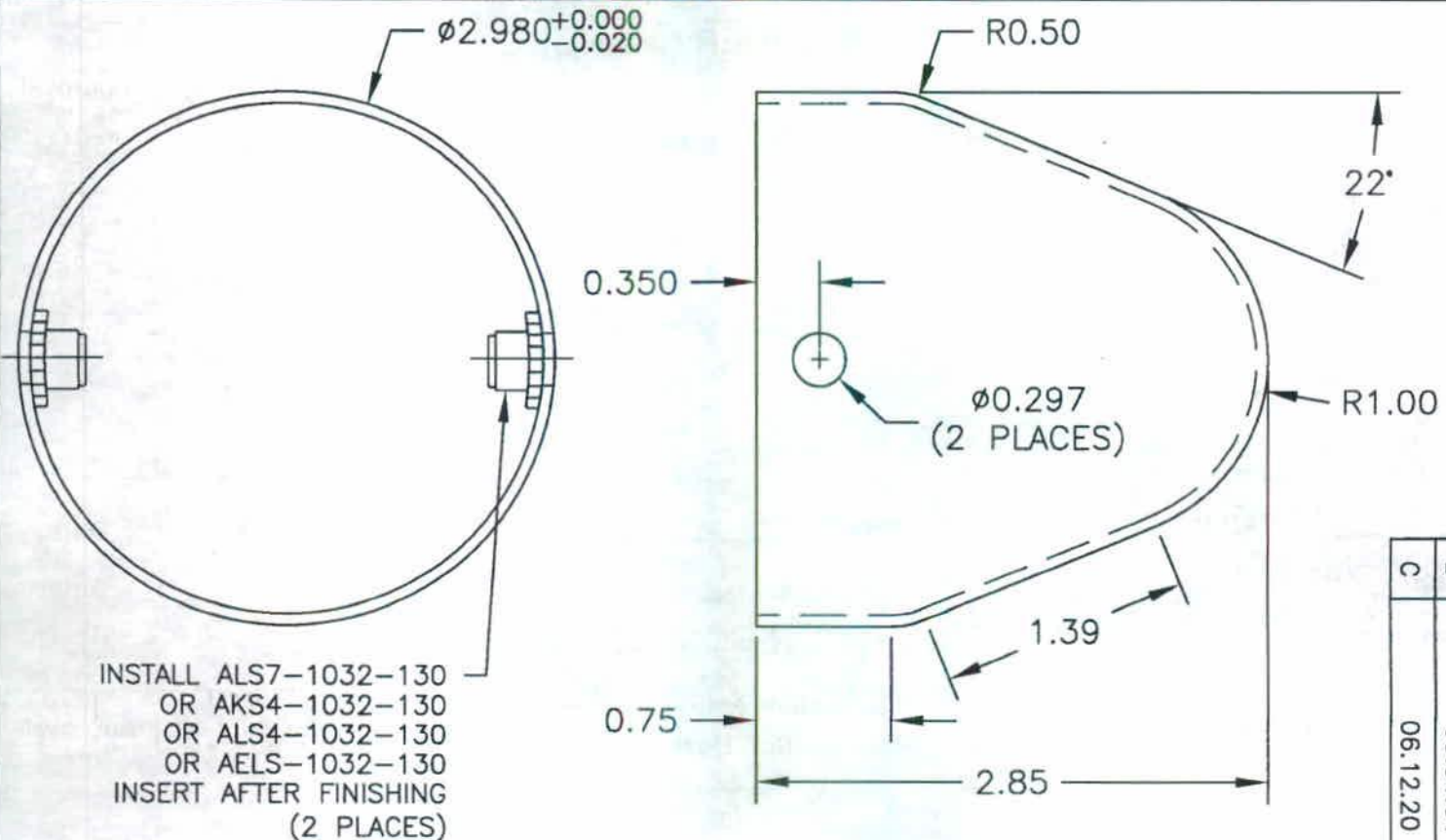
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

**DART**

DESIGN	DS	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED	<i>PH</i>	APPROVED <i>PH</i>	DRAWING NO. D2646	REV. C SHEET 1 OF 1
DATE			TITLE	SCALE
06.12.20			AFT CAP	1:1
A	97.03.25	NEW ISSUE		
B	05.04.01	CHANGE TO CLOSED INSERTS		
C	06.12.20	CHANGE TO OPEN ENDED INSERTS		



D2646 AFT CAP

- 1) MATERIAL: ALUMINUM 1100-O 0.063 THICK (QQ-A-250/1)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

REFERENCE ONLY

07.02.12 *[Signature]*

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO11589**

Purchase Order Date 05/04/2010

PO Print Date 05/04/2010

Page Number 1 of 1

**Order From :**

VC-SIE001

SIEG'S MANUFACTURING LTD.  
6236 - 205 STREET  
LANGLEY, BC V2Y 1N7  
CA

**FAXED**  
APR 30

**Contact Name**

Vendor Phone 604 530 7455

Vendor Fax 604 530 7490

Vendor Account Nbr

**Buyer**

Brigitte Golden

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

FOB

**Ship To :**

DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D2646P	Aft Cap	07/04/2010 Yes	100.00 Each	Yours ppd	\$5.3500	\$535.00

Special Inst: As Per Dwg: D2646 Rev:C

PO Total: \$535.00

*ASAP please!  
thank you*

Change Nbr: 1

Change Date: 05/04/2010

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required when applicable



# Sieg's Manufacturing Ltd. Packing Slip

Metal Spinning & Fabricating

6236 205 Street

Langley, BC, Canada V2Y 1N7

Phone:(604)530 7455 Fax:(604)530-7490

Packing Slip No.:

37785

Date:

04/19/2010

Page:

1

<b>Sold to:</b>		<b>Ship to:</b>	
DART AEROSPACE LTD. 1270 ABERDEEN STREET HAWKESBURY, ONTARIO K6A 1K7		DART AEROSPACE LTD. 1270 ABERDEEN STREET HAWKESBURY, ONTARIO K6A 1K7	
<b>Order No.:</b> P011589		<b>Sold By:</b> KAULBARS, ARLA	
<b>Shipped By:</b>		<b>Ship Date:</b> 04/19/2010	
<b>Tracking No.:</b>			

Item No.	Unit	Description	Quantity
D2646 P	Each	AFT CAP INSPECTION REPORT ATTACHED  SOLYB3	100
Comment:			





# Sieg's Manufacturing Ltd.

6236 205 Street Langley, B.C. Canada V2Y 1N7

Ph#: (604)530-7455 fax#: (604)530-7490

arla@siegsmfg.com

## INSPECTION REPORT

Date: April 19/2010

Customer: Dart Aerospace

Packing Slip: 37785

8 1004/03

Part#:	Quantity	Material	Check holes	Insp. By.
D2646P-ActCap.	100	0064 1100 0	✓	<u>D</u>

Notes:

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Material Certification Attached: yes





1480 Manheim Pike  
Lancaster Pa 17601

# CERTIFICATION OF TEST RESULTS

SOLD TO

COPPER & BRASS SALES INC  
2355 WEST ELEVEN MILE ROAD  
SOUTHFIELD, MI 48034

SHIP TO

COPPER & BRASS SALES INC  
6555 E. DAVIDSON  
DETROIT, MI 48212

CERT NO 0000598687  
DATE 10/26/2004  
SKID NO 322296  
SKID WGT 9,760  
PAGE 1 OF 1

ORDER NO	LB4176	PO NO	C99792
ITEM NO	1	PART NO	050393-8
ALLOY	1100	TEMPER	O
Gauge	.06300	WIDTH	48.0000
		FORM	COIL
		LENGTH	0.0000

MILL FINISH  
NOT ANODIZE QUALITY  
OUT: STANDARD MILL FINISH  
IN: STANDARD MILL FINISH  
NOT EMBOSSED

LOT: 238066 COIL: B01 DROP: 440525

INGOT SI FE CU MN MG CR NI ZN TI  
4405252 0.11 0.42 0.08 0.02 0.002 0.001 0.004 0.003 0.02

HEAD ULTIMATE STRENGTH 12.2 KSI  
TAIL ULTIMATE STRENGTH 12.6 KSI  
HEAD YIELD STRENGTH (OFFSET = .2%) 4.9 KSI  
TAIL YIELD STRENGTH (OFFSET = .2%) 5.6 KSI  
HEAD ELONGATION (G.L. = 2 IN) 35.5 %  
TAIL ELONGATION (G.L. = 2 IN) 33.5 %

CHEMICAL COMPOSITION ACCORDING TO ASTM E-1251-04  
MECHANICAL PROPERTIES ACCORDING TO ASTM B-557-02a

MECHANICAL AND CHEMICAL PROPERTIES MEET THE REQUIREMENTS OF:  
ASME SB209 1100 O, AMS 4001H 1100 O,  
ASTM B209-04 1100 O, AMS-QQ-A-250/1 1100 O

CERTIFICATION OF TEST RESULTS SHALL NOT BE REPRODUCED EXCEPT IN FULL.  
\*\* END OF CERTIFICATION \*\*

*Handwritten:*  
Henry @ SHS  
C/O  
Boe @  
CTB

This document certifies the material above has been tested in accordance with applicable specifications described herein and has met these requirements. The material is subject to terms and conditions on the Alcoa sales order agreement.

Authorized By:

JEFF FREEDY, LAB SUPERVISOR



